



Cal/EPA

Department of
Toxic Substances
Control

245 West Broadway,
Suite 425
Long Beach, CA
90802-4444

September 17, 1996

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NTC SAN DIEGO
SSIC #5090.3



Pete Wilson
Governor

James M. Strock
Secretary for
Environmental
Protection

Mr. Keith S. Forman
Interim BEC
Department of the Navy
Naval Training Center
33502 Decatur Road, Suite 120
San Diego, California 92133-1449

REVIEW OF ENGINEERING EVALUATION AND COST ANALYSIS
RESPONSE TO COMMENTS

Dear Mr. Forman:

The Integrated Waste Management Board (IWMB) and the Regional Water Quality Control Board (RWQCB) have reviewed the Navy's response to comments, and the September 4, 1996 meeting minutes on the Engineering Evaluation and Cost Analysis (EE/CA) for the Site 1 Landfill. As agreed during the meeting of September 4, 1996, I am forwarding the IWMB and the RWQCB's recommendations to you for consideration. In addition, we request that the Naval Training Center notifies us at the completion of the annual maintenance activities at Site 1 so that we can schedule a site visit.

If you have any questions regarding this transmittal, please feel free to contact me at (310) 590-4897.

Sincerely,

Aaron Yue
EAR Specialist/ Interim RPM
Base Closure and Conversion
Office of Military Facilities

Enclosures

cc: See Next Page.



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Mr. Keith S. Forman

September 17, 1996

Page 2

cc: Ms. Content Arnold
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Remedial Project Manager
California Regional Water Quality Control Board
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Mr. Martin Hausladen
Hazardous Waste Management Division
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Ms. Tamara Zielinski, P.E.
Associate Waste Management Engineer
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Ms. Sharon Fair
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Integrated
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8800 Cal Center Drive
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Pete Wilson
Governor

James M. Strock
Secretary for
Environmental
Protection

September 13, 1996

Mr. Aaron Yue
California Department of Toxic
Substances Control, Region 4
245 West Broadway, Suite 425
Long Beach, CA 92802-4444

Subject: Comments on the Response to Comments for the Draft Engineering Evaluation/Cost Analysis Non-Time Critical Removal Action for Installation Restoration Program Naval Training Center Site 1, Inactive Landfill, San Diego County, California

Dear Mr. Yue

Staff of the California Integrated Waste Management Board (CIWMB) have reviewed the Draft Engineering Evaluation/Cost Analysis (EE/CA) Non-Time Critical Removal Action for Installation Restoration Program Naval Training Center Site 1, Inactive Landfill dated June 1996, the response to comments and meeting minutes from the September 4, 1996, meeting and site visit. The following comments have been compiled to identify any outstanding issues regarding the documents adequacy in addressing the Applicable or Relevant and Appropriate Requirements (ARARs) for solid waste handling and disposal contained in California Code of Regulations Title 14 (14 CCR).

In general staff of the CIWMB agree that the actions proposed in the meeting minutes would address remaining outstanding issues in the EE/CA. However, the statement on page 5 "The Navy will consider doing additional subsurface work in this area, and if this work is done the Navy will coordinate placing a boring/probe on the Lindbergh Field side of the fence" is not adequate. It was staffs understanding that this work would be done. Staff recommends that the Navy define the extent of waste within the boundary of the site. This practice can result in a smaller and more cost efficient final cover. However, the geophysical anomalies that extend beyond the boundary of the site must be confirmed with physical evidence such as borings or trenches.

If you have any further questions regarding this matter please contact me at (916) 255-1197.

Sincerely,

Tamara Zielinski, P.E.
Associate Waste Management Engineer
Closure and Remediation Branch

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

71 CLAIREMONT MESA BOULEVARD, SUITE B
SAN DIEGO, CA 92124-1331
TELEPHONE: (619) 467-2952



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September 13, 1996

Mr. Aaron Yue
Department of Toxics Substances Control, Region 4
Office of Military Facilities
245 West Broadway, Suite 425
Long Beach, CA 90802-4444

Dear Mr. Yue:

**RE: RESPONSE TO COMMENTS REGARDING THE DRAFT ENGINEERING
EVALUATION/COST ANALYSIS (EE/CA) NON-TIME CRITICAL REMOVAL
ACTION FOR SITE 1 INACTIVE LANDFILL, NAVAL TRAINING CENTER
(NTC), SAN DIEGO**

The Regional Water Quality Control Board (RWQCB) staff has completed its review of the Navy's preliminary response to our comments regarding the draft EE/CA. In addition, we have reviewed the supplemental HELP model runs faxed to our office and the draft groundwater monitoring plan. The following is a summary of our comments on the above documents:

FINAL COVER DESIGN

Response to Comment:

See our comments under the HELP model below.

ALTERNATIVE 2 - SOIL COVER

Response to Comment 1:

Response is adequate.

Response to Comment 2:

Further details regarding the establishment of the native vegetation will need to be provided for our review once the detailed design for the final cover is complete. Although native vegetation will be used as a vegetative cover some initial irrigation of the final cover will be required. The irrigation requirements for the native vegetation will need to be provided with the detailed design for the final cover.

Response to Comment 3:

Response is adequate.

Response to Comment 4:

Response is adequate.

Response to Comment 5:

Response is adequate.

HELP MODEL

Response to Comment 1:

We have reviewed the response to our comments as well as the supplemental HELP model simulations submitted via fax. Based on our review, we have determined that the single layer cover for the South End of the landfill would be appropriate for the current post-closure land use. The Navy will need to ensure that infiltration is reduced by grading the final cover and through post-closure maintenance activities including erosion control measures prior to each rainy season.

If we determine that infiltration has not been reduced and/or water quality impairment occurs we may recommend a corrective action measure such as installation of a clay cap be implemented at the NTC landfill.

Response to Comment 2:

For the most part, the assumptions used in the HELP model are reasonable. However, the guidance document for the HELP model indicates that most landfills tend to have at best, a fair stand of grass and often a poor stand of grass because landfills are not designed as ideal support systems for vegetative growth. This could increase the infiltration of the final cover for the South End of the landfill shown in the HELP simulations. This further emphasizes the need for appropriate grading and erosion control measures for the NTC landfill.

Response to Comment 3

The current proposed final cover design under the least tern area is inadequate. Based on our evaluation of the additional HELP Model simulations and the no action alternatives it would appear that a substantial difference in the annual percolation rate for the least tern area would occur. Due to the location of waste and extent of the existing least tern area an alternative cover design should be considered which reduces percolation in this area.

GROUNDWATER MONITORING PROGRAM

Response to Comment 1

We understand that Figure 2-6 is an accurate depiction of the well screens for monitoring wells at NTC and that contact between the upper and lower boundaries of Zone A were sometimes hard to define due to the nature of the hydraulic fill used. In addition, we understand that the upper aquifer is located within the aquitard for some portions of the landfill. Since the monitoring wells were screened above the water table, the shallow monitoring wells adequately depict water quality in Zone A.

We have also reviewed Attachment A which contained the proposed modifications to the groundwater monitoring plan. We concur that the wells to be monitored as well as the chemical analyses are subject to change based on groundwater monitoring results. The Navy has also proposed additional metals and general chemistry constituents to be added to the groundwater monitoring program. We have no objections to these additional constituents.

At this time we do not concur with the proposed reduction in the groundwater monitoring network from 20 to 8 monitoring wells. Upon completion of a total of four rounds of groundwater monitoring on all existing wells a justification for the selection of a reduced monitoring program should be provided for our review. At the September 4, 1996 site meeting, we discussed our concerns regarding the groundwater data reported in the draft Groundwater Monitoring Plan. Due to the various dilution factors applied to groundwater samples for the SWAT and the ESI, it is difficult to determine water quality characteristics of the shallow and deep aquifers. The accuracy of groundwater sampling results will help us determine the water quality of the shallow and deep aquifers prior to the installation and maintenance of the final cover for NTC. For future groundwater monitoring reports, we will request that either the method detection limit (MDL) or the practical quantitation limit (PQL) be provided for each constituent to assist in our analysis of the groundwater data. Once we are confident that background water quality data can be established, we will continue to evaluate the proposed groundwater network and provide final comments on the appropriateness of these well locations.

Response to Comment 2

Response is adequate.

Response to Comment 3

Response is adequate.

Mr. Aaron Yue

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September 13, 1996

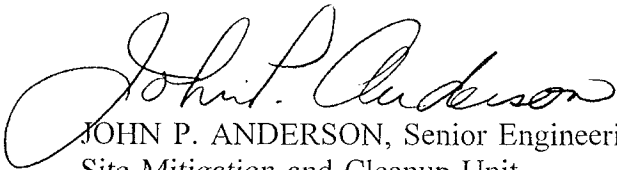
ARARs

Response to Comment 1

Response is adequate.

If you have any questions regarding this letter, please contact Corey Walsh at (619) 467-2980 or Carol Tamaki at (619) 467-2982.

Sincerely,



JOHN P. ANDERSON, Senior Engineering Geologist
Site Mitigation and Cleanup Unit

JPA:cmw

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cc:

Mr. Ken Calvert, County of San Diego, Department of Health Services. Hazardous Materials Management, PO Box 85261, San Diego, CA 92138-5261

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